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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,245	02/09/2004	Yasuharu Sasaki	248707US2	7165

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EXAMINER

DHINGRA, RAKESH KUMAR

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/773,245	SASAKI ET AL.	
	Examiner	Art Unit	
	Rakesh K. Dhingra	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 01 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-4, 5-8, 10-44 drawn to apparatus (ring member/plasma processing apparatus), classified in class 118, subclass 728.
- II. Claim 9, drawn to drawn to method, classified in class 438, subclass 09.

Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process requires applying two different DC voltages to electrode installed in the ring member whereas the apparatus does not specify applying two DC voltages and thus the process could be practiced on a materially different apparatus.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species 1 (As per Figures 1, 8, 9): A plasma processing apparatus comprising of a substrate mounted on a mounting table, a ring member formed of an insulating material and installed to surround the substrate on the mounting table, one or more electrodes installed in the ring member and a DC power supply for applying a DC voltage to one or more electrodes in the ring member, and where the ring member includes a base material and a film that has a main layer formed by thermal spraying a barrier coat layer formed of a ceramic including at least one element selected from the group consisting of B, Mg, Al, Si, Ca, Cr, Y, Zr, Ta, Ce and Nd and more particularly selected from one of B₄C, MgO, Al₂O₃, SiC, Si₃N₄, SiO₂, CaF₂, Cr₂O₃, Y₂O₃, YF₃, ZrO₂, TaO₂, CeO₂, Ce₂O₃, CeF₃, and Nd₂O₃ and at least a portion of film is sealed by a resin.

Species 2 (As per Figures 1, 8, 10): A ring member as in species 1 and where an anodic oxidized film is formed between base material and the barrier coat layer.

Species 3 (As per Figures 1, 8, 11A-11C): A ring member as in species 1 and where a sealing treated portion is formed in the film.

Species 4 (As per Figures 1, 8, 12): A ring member as in species 1 and where an anodic oxidized film is formed between base material and the barrier coat layer and a sealing treated portion is formed in the film and anodic oxidized film is sealed.

Species 5 (As per Figures 1, 8, 13A, 13B): A ring member as in species 1 and where a two layered ceramic film is formed and a sealing treated portion is formed in either first or second layers.

Species 6 (As per Figures 1, 8, 14): A ring member as in species 1 and where a two layered ceramic film is formed and a sealing treated portion is formed in either first or second layers and an anodic oxidized film is formed between base material and the two layered film and anodic oxidized film is sealed.

Species 7 (As per Figures 1, 8, 15): A ring member as in species 1 and where a ceramic film is formed including an element of the group 3a in the periodic table on the base material and a hydration –treated portion is formed in at least a portion of the film.

Species 8 (As per Figures 1, 8, 20): A ring member as in species 1 and where a film is formed on base material and a hydration –treated or hydroxide portion portion is formed in the film and an anodic oxidized film is formed between base material and the film and anodic oxidized film is sealed.

Species 9 (As per Figures 1, 8, 21A, 21B): A ring member as in species 1 and where a two layered ceramic film is formed and a hydration-treated portion is formed either in first or second ceramic layer.

Species 10 (As per Figures 1, 8, 22): A ring member as in species 1 and where a two layered ceramic film is formed and an anodic oxidized film is formed between base material.

Species 11 (As per Figures 1, 8, 23): A ring member as in species 1 and where a two layered ceramic film is formed that has a first ceramic layer formed including an element of the group 3a in the periodic table and a second ceramic layer is formed by thermal spraying of ceramic and a hydration-treated portion is formed the first ceramic layer.

Species 12 (As per Figures 1, 8, 24): A ring member as in species 1 and where a two layered ceramic film is formed that has a first ceramic layer formed including an element of the group 3a in the periodic table and a second ceramic layer is formed by thermal spraying of ceramic and a hydration-treated portion is formed the first ceramic layer and a sealing treated portion is formed in second ceramic layer using resin or sol-gel method.

Species 13 (As per Figures 1, 8, 25): A ring member as in species 1 and where a two layered ceramic film is formed and where the two layers are installed in a reverse order that has a first ceramic layer formed including an element of the group 3a in the periodic table and a second ceramic layer is formed by thermal spraying of ceramic and a hydration-treated portion is formed the first ceramic layer and a sealing treated portion is formed in second ceramic layer using resin or sol-gel method.

Species 14 (As per Figures 1, 8, 26): A ring member as in species 1 and where a two layered ceramic film is formed and an anodic oxidized film is formed between base material and the film.

Species 15 (As per Figures 1, 8, 27): A ring member as in species 1 except that ring member with base formed out of sintered ceramic body and a hydration treated portion is formed in a surface portion of the base material and including the element of group 3a in the periodic table.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, at least claims 1, 5 appear to be generic.

Applicant is advised that a reply to this requirement must include an identification of the **invention and species** (if invention of group I is elected) that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rakesh K. Dhingra whose telephone number is (571)-272-5959. The examiner can normally be reached on 8:30 -6:00 (Monday - Friday).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571)-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rakesh Dhingra



Parviz Hassanzadeh
Supervisory Patent Examiner
Art Unit 1763